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Patent Yonat et al. 0-03-148/ 14400-15026/US/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Yonat et al.
Serial no.: 10/612,528
Filed: July 2, 2003
Title: IMPROVED IRRIGATION PIPELINES
Examiner: Tara Mayo
Art Unit: 3671

Response and Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This response is in reply to the office action mailed on October 26, 2004.

In the office action, the examiner rejected claims 1 to 15 as being unpatentable for at least four reasons. The first reason was that the term "improved" in claims 1, 14 and 15 was vague. Applicants have amended those claims by deleting the term "improved." These amendments have not altered the breadth nor scope of the claimed invention. The second reason was that claims 1, 2, 4, 6, 8 and 12-15 were deemed as being anticipated by Presby (US patent number 6,461,078 B1); the third reason was that claims 3, 5, 9, and 10 are deemed obvious over Presby in view of Houston et al. (US patent number 6,776,194 B2); and the fourth reason was that claims 7 and 11 are deemed to be obvious in view of Presby. Applicant respectfully traverses the second, third and fourth rejections.

The present invention, as defined in claim 1, relates to drip pipelines that are comprised of pipes having bores created therein for dispensing water to the soil, and a layer pervious to water applied to the pipe to screen the bores. These pipelines are intended to provide irrigation by gradually dispensing water or any aqueous solutions to the soil. The pipelines are laid, in most cases, upon the soil, but in some cases, within the soil at a certain depth from the surface. The function of the screening layer is to protect the pipe's bores from clogging due to ingress of undesired material, such as growing roots, such that normal, unimpeded flow of liquid is to be dispensed to the soil.

In contrast, Presby discloses a corrugated sewage pipe, which is wrapped around by pretreated layers of multilayered fabric, for reducing ground water contamination by removing oil, grease and other chemicals prior to collection or reuse. Each layer of the multilayer fabric has a specific denier which dissimilar to the denier of each adjacent layer. At least one of the layers consists of an unstructured assemblage of fibers. The oils, greases and chemicals contained in the fluid to be treated are entrapped within at least one of the first layers and at least one additional layer of fabric, and particularly on the unstructured assemblage of fibers, where biodegradation takes place. Each layer contains different types of bacteria for further treating the liquid prior to its leaving the pipe's environs. The covered pipeline is placed within trenches and then covered entirely by soil. In a preferred embodiment, the corrugation chambers of the pipe

can contain a large amount of solids which are processed within the pipe, which process produces the leached liquid which eventually exits the pipe. This pipe is more efficient according to Presby because the large amounts of solids it can retain within it.

The present invention is entirely different in function as well as structure from that disclosed by Presby. In the present invention, only a liquid medium passed through the pipe, as it would be detrimental to pass any solids through it. Additionally, claim 1 of the present invention disclosed a (single) layer which is intended to screen the bores by keeping undesirable material out of the bores. The surrounding fabric disclosed by Presby comprises multiple layers of fabric, each of different coarseness, and is intended to keep impurities within the fabric.

Houston et al. disclose an apparatus comprising a helical structure that is adapted to be engaged externally with a conduit for carrying fluid, such that a flow guiding formation is imposed, maintained or reinforced, internally of the conduit. No one having skill in the art of fluid handling would ever think of utilizing the device taught by Houston et al. for the purpose disclosed by Presby. Presby specifically states (col. R, lines 41-44) that the multilayer fabric is intended to disperse liquids without channeling the liquids in a forced direction. The apparatus disclosed by Houston et al. on the other hand, is specifically intended by imposing a flow conformation. Additionally, the conduit disclosed by Presby consists of multiple layers of fabric, wherein each layer is intended to entrap and break down different impurities within it depending on the fabric's denier. Coated stainless steel wires, spirally oriented in a layer surrounding the conduit would not be useful for such a purpose.

In view of the above, it is respectfully submitted that the present invention is dissimilar from the cited prior references – Presby and Houston et al. – and that Presby by itself and/or in combination with Houston et al. fail to teach, disclose and/or suggest the claimed invention. It is respectfully submitted that these claims are in condition for allowance and such allowance is respectfully requested.

Respectfully submitted,

Date: 1/24/05

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I hereby certify that this correspondence is being deposited with the United States Postal Service in first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

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